Comment *020-149* Provide as an attachment to the Draft EIS, copies of all applications, approvals, conditions and compliance documents pertaining to the State of Washington Water Pollution Control Law, Chapter 90.48 RCW.

Comment *020-150* Provide as an attachment to the Draft EIS, copies of all applications, approvals, conditions and compliance documents pertaining to the Federal Water Pollution Control Act (Clean Water Act) Title 33, United States Code, Section 1251 et seq.

Response Project permits are not required at the EIS stage. Ultimately the applicant would have to obtain a other required permits prior to grading permit approval.

Comment *019-605* "Although sufficient water level data are not available to prepare detailed groundwater contour maps or accurately estimate the hydraulic gradient or potential for flow between the aquifers for the site vicinity ..." [DEIS vol. II, app. D, page 9, sec. 2.2.1.2 Groundwater Flow). To proceed with this project without this information would be negligence beyond belief, putting the health and welfare of the public and environment at significant risk. The FEIS should require this data be provided and analyzed before proceeding. The public has a right to preview this

Response Comment acknowledged.

Comment *020-084* The FEIS should reconcile the above with the DEIS statement that, "The proposed groundwater seepage interception trench would maintain a minimum 5-foot buffer zone beneath the easternmost portion of the Lower Site during ongoing site operations." [DEIS Vol. 1I, Appendix D, page 27, section 3.2.2.2]. How will the project maintain a minimum 5-foot buffer zone while admitting that an "encounter" will occur?

Response At the Lower Site, a buffer zone would be maintained, and the aquifer is not expected to be encountered. Operations should cease and equipment should be removed in areas where the buffer zone cannot be maintained.

Comment *020-085* The FEIS should reconcile the above two statements with the DEIS statement that, "The buffer zone is a term used to describe the vertical distance between the base of the proposed excavations at the Lower Site and Upper Sites and the seasonal high groundwater level in the underlying regional aquifer(s). The proponent incorporated a buffer zone in to their mining plan to provide protection of groundwater. The purpose of the buffer zone is to provide an adequate vertical separation so if there is a spill of chemicals, lubricants or fuels on site, the operator can respond to the spill in accordance with the Spill Prevention and Emergency Response Plan before the underlying groundwater becomes impacted. In addition, during reclamation, the buffer zone provides separation from the water table needed for development of roots for trees that would be planted at the site. Without a sufficient buffer zone, groundwater quality could be easily impacted and reforestation during site reclamation would be more difficult." [DEIS Vol. II, Appendix D, page 27, section 3.2.2.21.

Response Comment noted.

Comment *012-030*

One of the principal weaknesses of the draft EIS is the focus that is placed on expected or "best guess" scenarios and conditions. Uncertainties are not explicitly considered. The sensitivities of calculations and estimates are not presented. A more reliable approach for developing the EIS would be to identify reasonably possible scenarios, and not only single, "best-guess" scenarios. Options should be described for mitigating adverse impacts for those reasonably possible scenarios that are most critical in terms of environmental effects. Sections 4.3, "Precipitation Estimates" and 4.4, "Groundwater Recharge Rates" are clear examples of such best-guess, averages-based scenarios.

Response

The FEIS considers a range of precipitation and discusses the potential changes in recharge rates under different precipitation scenarios.

Comment *020-827*

For example, the Best Available Technologies must be utilized in the FEIS to prepare detailed groundwater contour maps, hydraulic gradient, and potential for flow between aquifers from the Lower and Upper sites. Rather than relying on the statement that "Although sufficient water level data are not available to prepare detailed groundwater contour maps or accurately estimate the hydraulic gradient or potential for flow between the aquifers for the site vicinity ..."(DEIS vol. 11, app. D, page 9, sec. 2.2.1.2 Groundwater Flow).

This foundation is essential because "Groundwater in the study area discharges as seepage to springs and streams, transpiration by plants, groundwater outflow down valley and withdrawals from wells. [DEIS, vol. II, appendix. D, page 9, Discharge]. "'In the study area, groundwater discharges from aquifers into the Middle and South Forks of the Snoqualmie River." [DEIS, vol. II, appendix. D, page 9, Discharge]. Additionally, "Excavation at the Upper Site may modify discharge from perched aquifers feeding the middle and east fork of the unnamed tributary of the Middle Fork of the Snoqualmie River and the stream flowing directly south of the Washington State Patrol Fire Training Academy into the South Fork of the Snoqualmie River." [DEIS vol. II, appendix E, sec. 3.3, Cumulative Impacts, pg. 27]. Therefore "The loss of groundwater from a breached aquifer could also cause permanent changes in groundwater flow to streams and springs" and "... any groundwater seeps or springs could be a factor in slope failures". [Hart Crowser Report page 18].

Response

The intent of the DEIS was to use all data available to provide the greatest level of detail. The DEIS qualifies the assumptions and limitations of the various data sources. The available data are considered adequate to assess potential impacts.

Comment *019-058*

"Cadman, Inc., collected data regarding the occurrence of groundwater at the Lower and Upper Sites during the drilling of a series of borings in ..." [DEIS Vol. 11, Appendix D, page 10, section 2.2.2]. The FEIS should address why the bore samples taken by Cadman would be referenced, they are irrelevant to groundwater because "... the primary purpose of these borings was to evaluate the sand and gravel resources beneath Grouse Ridge, rather than to evaluate the presence and occurrence of groundwater." [DEIS Vol. II, Appendix D, page 11, section 2.2.2].

Comment *020-148*

Bore Analysis.

"Cadman, Inc., collected data regarding the occurrence of groundwater at the Lower and Upper Sites during the drilling of a series of borings in ..." [DEIS Vol. 11, Appendix D, page 10, section 2.2.2]. The FEIS should address why the bore samples taken by Cadman would be referenced, they are irrelevant to groundwater because "... the primary purpose of these borings was to evaluate the sand and gravel resources

beneath Grouse Ridge, rather than to evaluate the presence and occurrence of groundwater." [DEIS Vol. 11, Appendix D, page 11, section 2.2. 2].

Response The intent of the DEIS was to use all data available to provide the greatest level of detail. The findings in the EIS rely primarily on the Dames & Moore (URS) borings for site groundwater information because of their specific investigation purpose.

Comment *020-077* The FEIS should address the efficacy of the following statement from the DEIS." Construction activities are considered to be too short in duration to impact groundwater." [DEIS Vol. 1I, Appendix D, page 19, section 3.1]. What exactly is "short" about 25-years of construction encompassing 11 separate construction

Response Comment acknowledged. Construction activities are defined as land clearing and construction of structures. These activities are considered short in duration. Gravel mining and processing are considered operations.

Comment *020-072* The FEIS should reconcile the following statements by the DEIS. "On a regional basis, this net decrease in quantity of water in the aquifer system will be offset by enhanced recharge on the Upper site.'" [DEIS Vol 11, Appendix D, page 35, section 3.2.2.3J. Whereas, a contrary statement indicates that, "Overall, the increase rate of recharge is expected to be modest for the following reasons ..." [DEIS Vol. 11, Appendix D, page 33, section 3.2.2.2].

Response This is not a contradiction. On a regional basis, the potential changes to water balance are relatively small.

Comment *020-066* For example the DEIS states, "Once the gravel operation is active on the Upper Site, regular observations and measurements of stream flow should be performed to confirm that impacts are not significant. Water quality testing should not be necessary unless the impacts to the water are visually evident (for example, the water appears turbid or a hydrocarbon sheen is evident)." [DEIS Vol 11, Appendix D, page 47, section 3.4.2.2]. Is the average citizen who depends on King County to protect their water resources supposed to be reassured from this absurd statement? It obviously reflects the mind-set of the DEIS authors and displays the condescension they must hold for citizenry that will be impacted by this project.

Response Comment acknowledged.

Comment *020-082* The DEIS states, "Higher groundwater levels would be expected beneath the easternmost portion of the excavation. In this area, the 20-foot buffer zone would not be maintained throughout the year under average rainfall and aquifer recharge conditions. In addition, the potential exists that the water table could be encountered during excavation if the excavation occurred during the period of high seasonal groundwater levels.'" [DEIS Vol. [f, Appendix D, page 27, section 3.2.2.2].

Response The buffer zone is greater than 20 feet thick across the majority of the site. However, there are areas in the eastern portion of the Lower Site where the buffer zone may be less on a seasonal basis.
